

WHAT IS CLAIMED IS:

1. A method of communicating voice transmissions to a receiving device from a transmitting device, comprising:

5 using an encryption selection key value to select an initial encryption algorithm using an encryption selection table stored at the transmitting device, the encryption key value being a function of at least one or both of a periodic key value and a public variable key
10 value;

encrypting the initial voice transmissions from the transmitting device using the initial encryption algorithm, the transmitting device being capable of encrypting voice transmissions using a plurality of
15 encryption methods; and

transmitting information associated with the voice transmissions in an encrypted form from the transmitting device.

20 2. The method of Claim 1 and further comprising:
receiving a periodic key value at the transmitting device;

receiving a public variable key value at the transmitting device;

25 calculating an index value as a function of the periodic key and public variable key values; and

calculating the encryption key value as a function of the index value.

30 3. The method of Claim 2 wherein the key value is an integer equal to the units place of the index value.

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4. The method of Claim 1 and further comprising periodically changing to a next encryption method as indicated in the encryption selection table;

transmitting data associated with the voice
5 communication using the next encryption method to the receiving device; and

transmitting to the receiving device a warning switch signal prior to transmitting the data associated with the voice communication which is encrypted using the
10 next encryption method.

5. The method of Claim 4 wherein the step of periodically changing comprises the step of changing to the next encryption method responsive to the expiration
15 of a timer.

6. The method of Claim 4 wherein the warning switch signal comprises a predetermined tone detectable by the receiving device.

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7. A telecommunications device operable to send and receive encrypted voice communications through a public switched telephone network, the device comprising:

5 a central processing unit operable to interact with a user of the device through a user interface;

an encryption decryption engine operable to execute a plurality of encryption methods under the control of the central processing unit;

10 an encryption selection table accessible using an encryption key value, the encryption selection table specifying at least one encryption algorithm associated with each of the encryption key values; and

15 the device operable to encrypt voice communications transmitted from the device using an initial encryption method associated with an indicated encryption key value.

8. The device of Claim 7 wherein the indicated key value comprises a number which is a function of a periodic key value and a public variable key value, the
20 periodic key value being a number which is agreed upon between a transmitting party and a receiving party exchanging voice communications, the public variable key value being a numeric value which is accessible by both the transmitting and receiving party.

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9. The device of Claim 7 and further comprising a timer operable to communicate with the central processing unit, the device operable to switch to a next encryption method as indicated in the encryption selection table by
5 incrementing the key value and retrieving the next encryption algorithm associated with the incremented key value, the device operable to switch to the next encryption algorithm upon a signal received by the central processing unit from the timer such that the
10 device is operable to periodically change from one of the plurality of encryption methods to a different encryption method during the course of a single voice communication session.

15 10. The device of Claim 9 wherein the device is further operable to transmit a warning switch signal to the receiving device prior to transmitting information encrypted using the next encryption method.

20 11. The device of Claim 9 wherein the device is operable to switch to a next encryption method as indicated in the encryption selection table by incrementing the key value and retrieving the next encryption algorithm associated with the incremented key
25 value such that the device is operable to periodically change from one of the plurality of encryption methods to a different encryption method during the course of a single voice communication session.

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